

Fig. 1

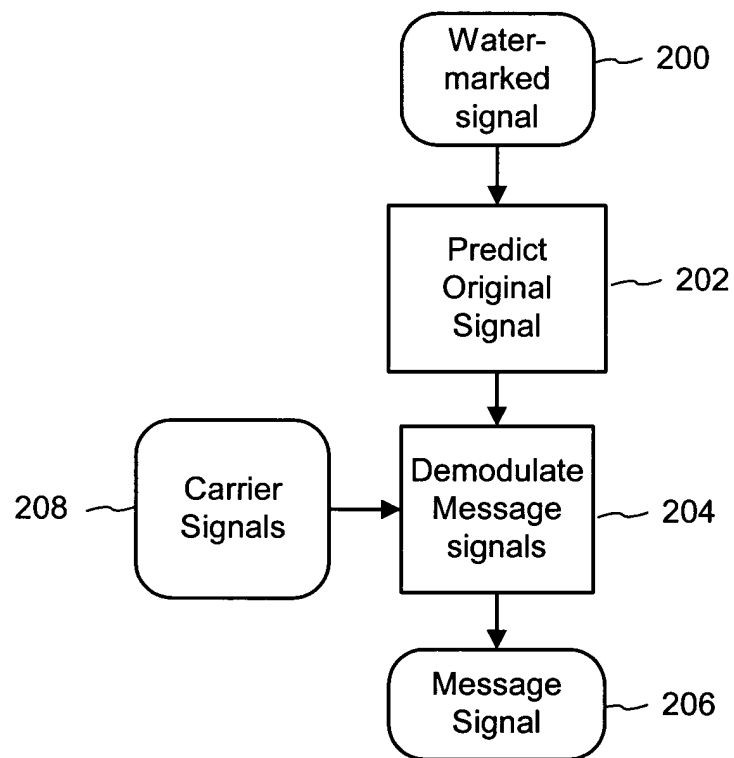


Fig. 2

Fig. 3

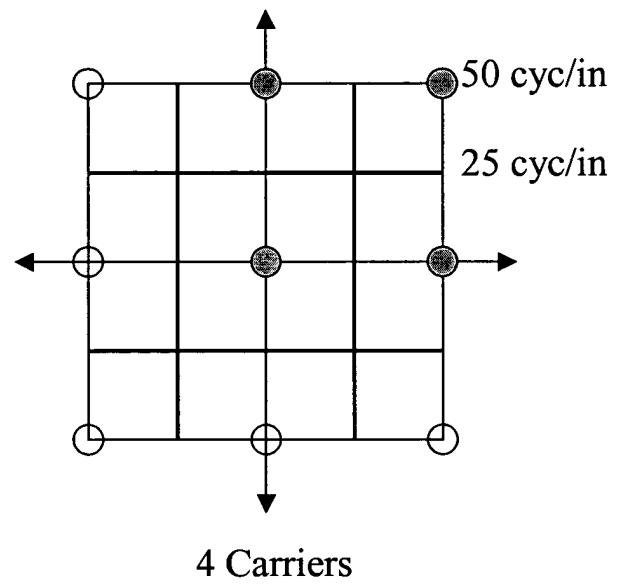
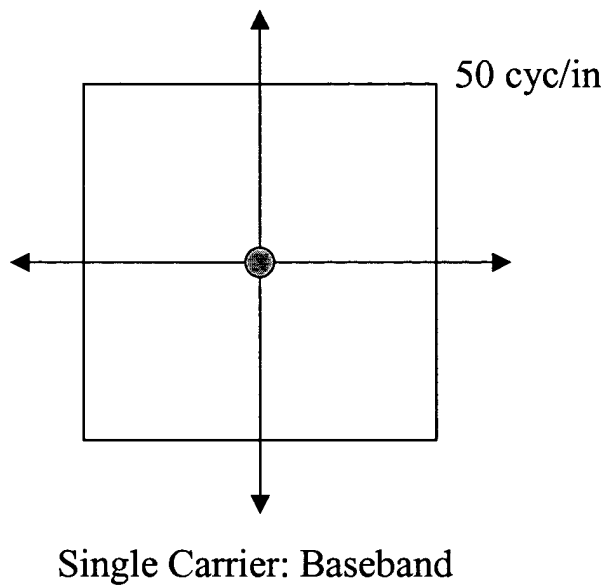


Fig. 4

<table> <tr><td>1/2</td><td>1/2</td></tr> <tr><td>1/2</td><td>1/2</td></tr> </table>	1/2	1/2	1/2	1/2	<table> <tr><td>1/2</td><td>-1/2</td></tr> <tr><td>1/2</td><td>-1/2</td></tr> </table>	1/2	-1/2	1/2	-1/2	<table> <tr><td>1/2</td><td>-1/2</td></tr> <tr><td>-1/2</td><td>1/2</td></tr> </table>	1/2	-1/2	-1/2	1/2	<table> <tr><td>1/2</td><td>1/2</td></tr> <tr><td>-1/2</td><td>-1/2</td></tr> </table>	1/2	1/2	-1/2	-1/2
1/2	1/2																		
1/2	1/2																		
1/2	-1/2																		
1/2	-1/2																		
1/2	-1/2																		
-1/2	1/2																		
1/2	1/2																		
-1/2	-1/2																		
Carrier _{0,0}	Carrier _{1,0}	Carrier _{1,1}	Carrier _{0,1}																
C _{0,0} = 1/2	C _{1,0} = 1/2cos(ω _{50cyc/in} x)	C _{1,1} = 1/2cos(ω _{50cyc/in} x) cos(ω _{50cyc/in} y)	C _{0,1} = 1/2cos(ω _{50cyc/in} y)																

$$\text{Waveform} = f_0 C_{0,0} + f_1 C_{1,0} + f_2 C_{1,1} + f_3 C_{0,1}$$

$f_3 f_2 f_1 f_0$	$f_3 f_2 f_1 f_0$	$f_3 f_2 f_1 f_0$	$f_3 f_2 f_1 f_0$	$f_3 f_2 f_1 f_0$													
-1 -1 -1 -1	<table><tr><td>-2</td><td>0</td></tr><tr><td>0</td><td>0</td></tr></table>	-2	0	0	0	-1 1 -1 -1	<table><tr><td>-1</td><td>-1</td></tr><tr><td>-1</td><td>1</td></tr></table>	-1	-1	-1	1	1 -1 -1 -1	<table><tr><td>-1</td><td>1</td></tr><tr><td>-1</td><td>-1</td></tr></table>	-1	1	-1	-1
-2	0																
0	0																
-1	-1																
-1	1																
-1	1																
-1	-1																
-1 -1 -1 1	<table><tr><td>-1</td><td>1</td></tr><tr><td>1</td><td>1</td></tr></table>	-1	1	1	1	-1 1 -1 1	<table><tr><td>0</td><td>0</td></tr><tr><td>0</td><td>2</td></tr></table>	0	0	0	2	1 -1 -1 1	<table><tr><td>0</td><td>2</td></tr><tr><td>0</td><td>0</td></tr></table>	0	2	0	0
-1	1																
1	1																
0	0																
0	2																
0	2																
0	0																
-1 -1 1 -1	<table><tr><td>-1</td><td>-1</td></tr><tr><td>1</td><td>-1</td></tr></table>	-1	-1	1	-1	-1 1 1 -1	<table><tr><td>0</td><td>-2</td></tr><tr><td>0</td><td>0</td></tr></table>	0	-2	0	0	1 1 1 -1	<table><tr><td>1</td><td>-1</td></tr><tr><td>-1</td><td>-1</td></tr></table>	1	-1	-1	-1
-1	-1																
1	-1																
0	-2																
0	0																
1	-1																
-1	-1																
-1 -1 1 1	<table><tr><td>0</td><td>0</td></tr><tr><td>2</td><td>0</td></tr></table>	0	0	2	0	-1 -1 1 1	<table><tr><td>1</td><td>-1</td></tr><tr><td>1</td><td>1</td></tr></table>	1	-1	1	1	1 1 1 1	<table><tr><td>2</td><td>0</td></tr><tr><td>0</td><td>0</td></tr></table>	2	0	0	0
0	0																
2	0																
1	-1																
1	1																
2	0																
0	0																

Fig. 5

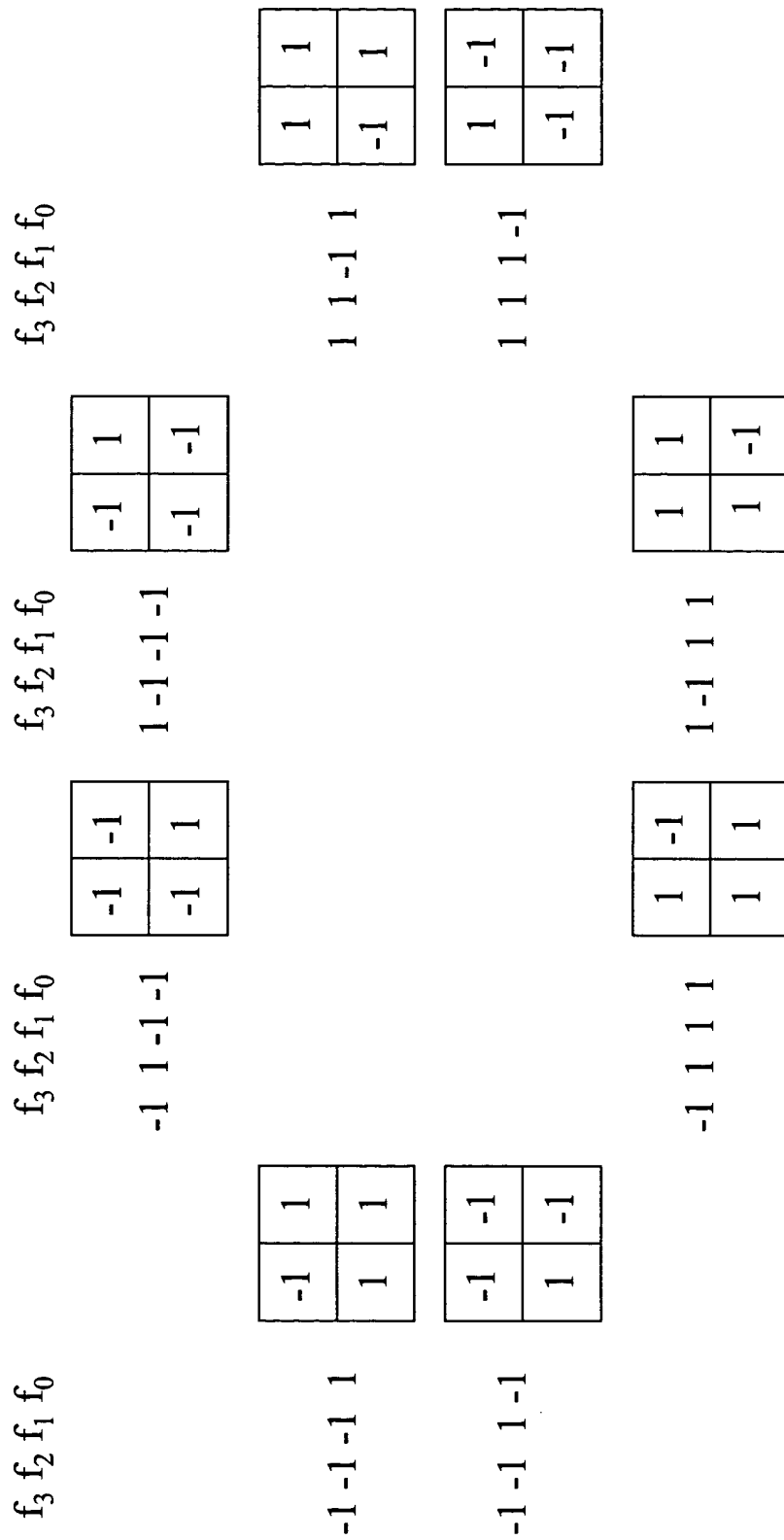


Fig. 6

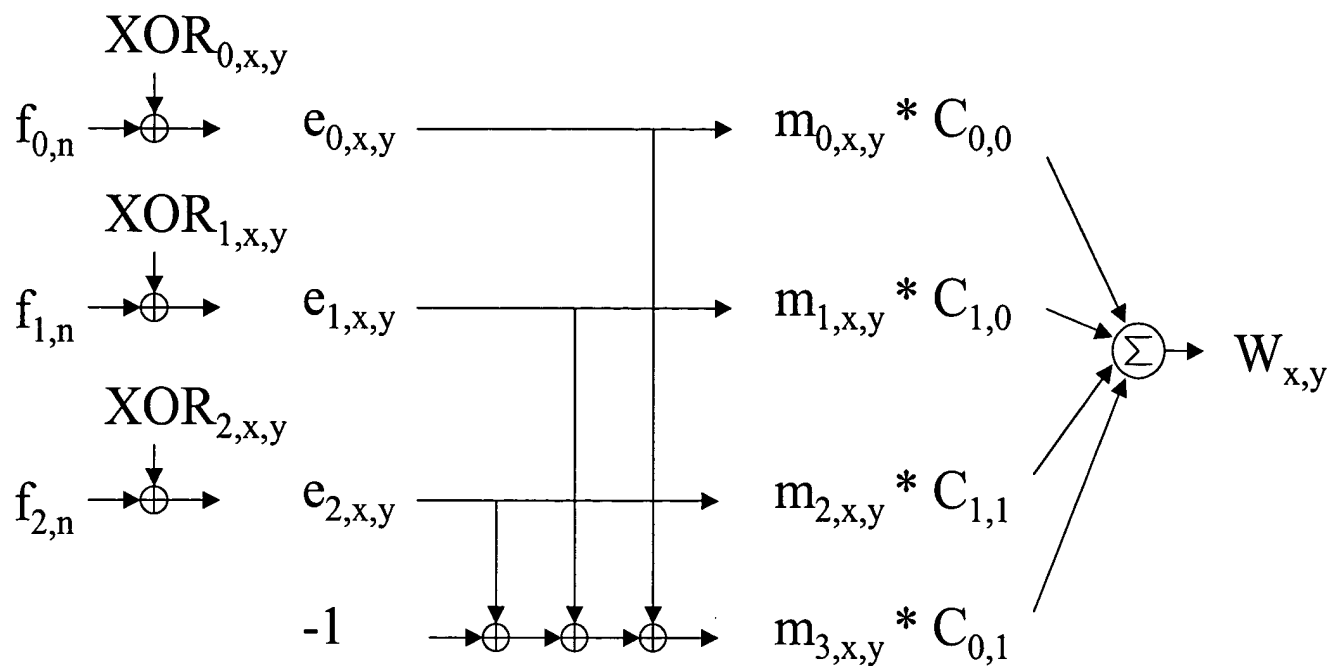


Fig. 7

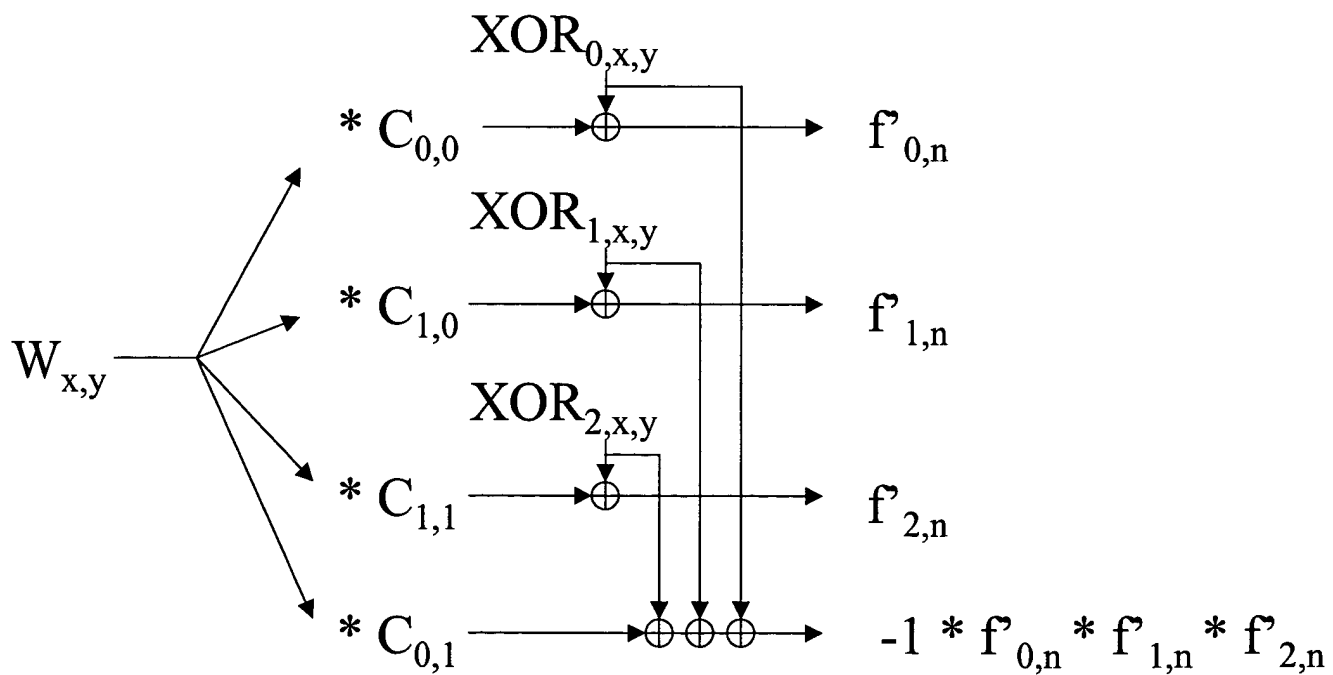


Fig. 8

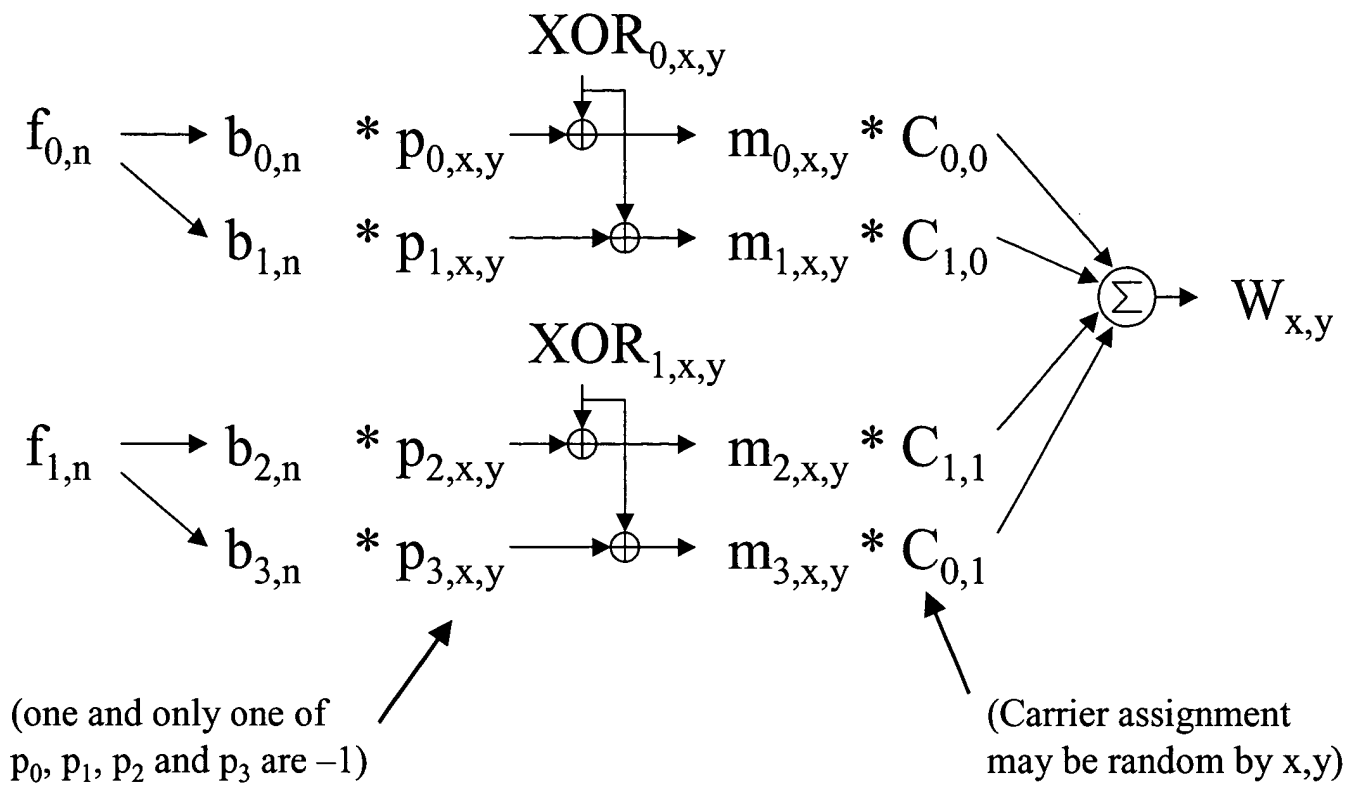


Fig. 9

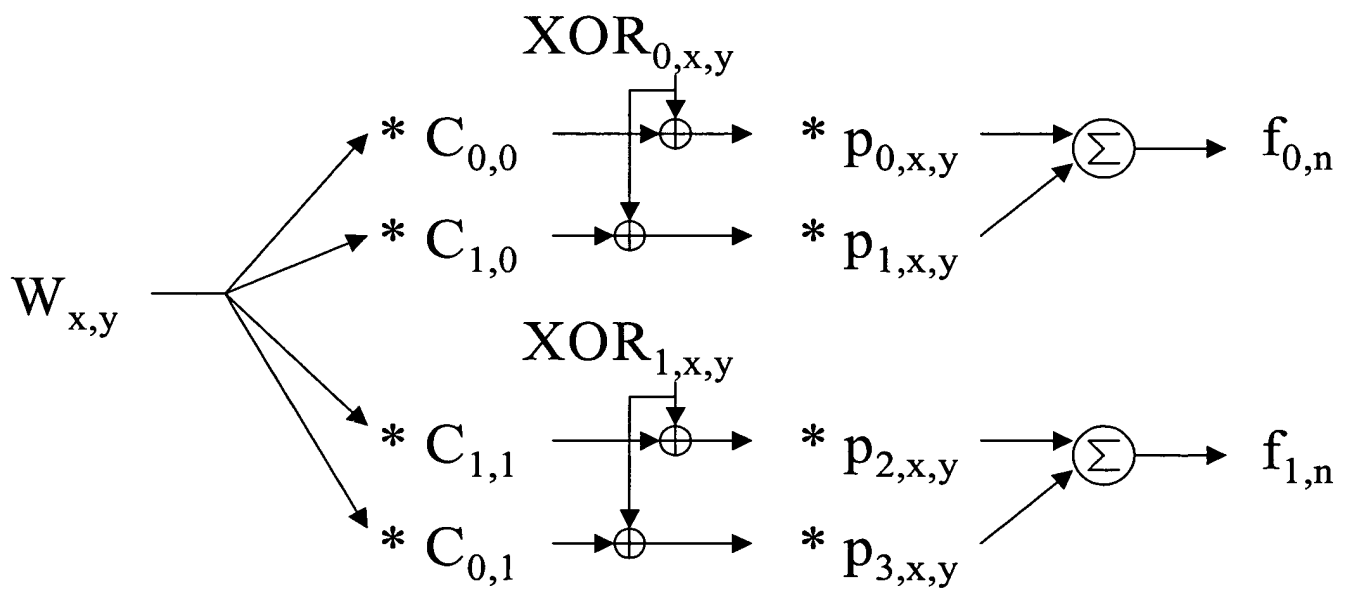


Fig. 10

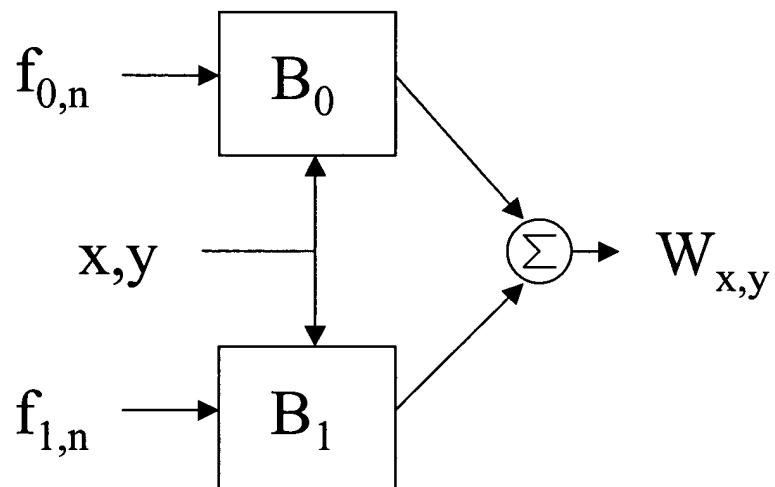


Fig. 11

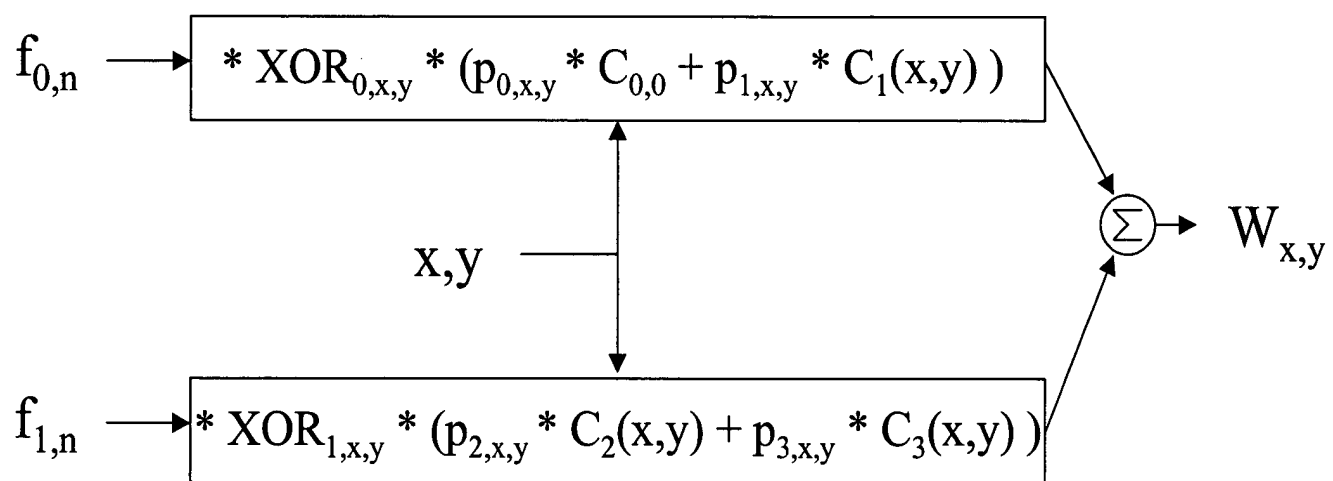


Fig. 12

$(p_{0,x,y} * C_{0,0} + p_{1,x,y} * C_1(x,y))$		$(p_{2,x,y} * C_2(x,y) + p_{3,x,y} * C_3(x,y))$									
$-C_{0,0} \ C_{1,1}$	<table><tr><td>0</td><td>-1</td></tr><tr><td>-1</td><td>0</td></tr></table>	0	-1	-1	0	$C_{0,1} \ C_{1,0}$	<table><tr><td>1</td><td>0</td></tr><tr><td>0</td><td>1</td></tr></table>	1	0	0	1
0	-1										
-1	0										
1	0										
0	1										
$-C_{0,0} \ C_{0,1}$	<table><tr><td>0</td><td>0</td></tr><tr><td>-1</td><td>-1</td></tr></table>	0	0	-1	-1	$C_{0,0} \ C_{1,1}$	<table><tr><td>1</td><td>1</td></tr><tr><td>0</td><td>0</td></tr></table>	1	1	0	0
0	0										
-1	-1										
1	1										
0	0										
$-C_{0,0} \ C_{1,0}$	<table><tr><td>0</td><td>-1</td></tr><tr><td>0</td><td>-1</td></tr></table>	0	-1	0	-1	$C_{0,0} \ C_{1,1}$	<table><tr><td>1</td><td>0</td></tr><tr><td>1</td><td>0</td></tr></table>	1	0	1	0
0	-1										
0	-1										
1	0										
1	0										
$C_{0,0} \ -C_{1,1}$	<table><tr><td>0</td><td>1</td></tr><tr><td>1</td><td>0</td></tr></table>	0	1	1	0	$C_{0,0} \ C_{1,1}$	<table><tr><td>1</td><td>0</td></tr><tr><td>0</td><td>1</td></tr></table>	1	0	0	1
0	1										
1	0										
1	0										
0	1										
$C_{0,0} \ -C_{0,1}$	<table><tr><td>0</td><td>0</td></tr><tr><td>1</td><td>1</td></tr></table>	0	0	1	1	$C_{0,0} \ C_{1,1}$	<table><tr><td>1</td><td>1</td></tr><tr><td>0</td><td>0</td></tr></table>	1	1	0	0
0	0										
1	1										
1	1										
0	0										
$C_{0,0} \ -C_{1,0}$	<table><tr><td>0</td><td>1</td></tr><tr><td>0</td><td>1</td></tr></table>	0	1	0	1	$C_{1,1} \ -C_{0,1}$	<table><tr><td>1</td><td>0</td></tr><tr><td>1</td><td>0</td></tr></table>	1	0	1	0
0	1										
0	1										
1	0										
1	0										

Fig. 13